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*March 31, 2005*

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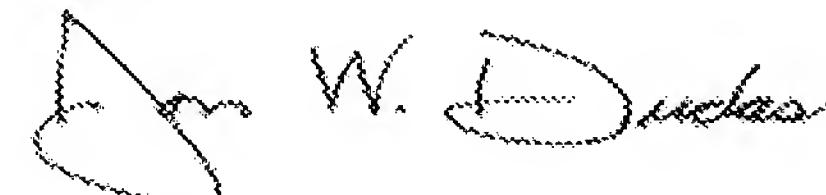
APPLICATION NUMBER: 60/549,408

FILING DATE: *March 01, 2004*

RELATED PCT APPLICATION NUMBER: PCT/US05/06771



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A handwritten signature in black ink, appearing to read "W. Douglas".

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# **PROVISIONAL APPLICATION FOR PATENT COVER SHEET**

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

**Express Mail Label No. EL 982740323 US**

22264 U.S.PTO  
60/549408

| INVENTOR(S)  |  |   |                        |     |                |
|--|--|---|------------------------|-----|----------------|
| Given Name (first and middle [if any] )<br>Errol   | Family Name or Surname<br>DREW   | Residence<br>(City and either State or Foreign Country)<br>Southbridge, Northampton, United Kingdom |                        |     |                |
| <i>Additional inventors are being named on the _____ separately numbered sheets attached hereto</i>  |  |   |                        |     |                |
| <b>TITLE OF THE INVENTION (500 characters max)</b>   |  |   |                        |     |                |
| <b>A SINGLE MAIN BEAM BICYCLE AND A SEPARABLE JOINT</b>  |  |   |                        |     |                |
| <i>Direct all correspondence to:</i> <b>CORRESPONDENCE ADDRESS</b>   |  |   |                        |     |                |
| <input checked="" type="checkbox"/> Customer Number:   | 00959  |   |                        |     |                |
| <b>OR</b>  |  |   |                        |     |                |
| <input type="checkbox"/> Firm or Individual Name   | David J. Rikkers<br>LAHIVE & COCKFIELD, LLP  |   |                        |     |                |
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| City   | Boston   | State   | MA                     | Zip | 02109          |
| Country  | US   | Telephone   | (617) 227-7400         | Fax | (617) 742-4214 |
| <b>ENCLOSED APPLICATION PARTS (check all that apply)</b>   |  |   |                        |     |                |
| <input checked="" type="checkbox"/> Specification Number of Pages  | 6  | <input type="checkbox"/> CD(s), Number  |                        |     |                |
| <input checked="" type="checkbox"/> Drawing(s) Number of Sheets  | 4  | <input type="checkbox"/> Other  |                        |     |                |
| <input checked="" type="checkbox"/> Application Data Sheet. See 37 CFR 1.76  | (specify):   |   |                        |     |                |
| <b>METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT</b>  |  |   |                        |     |                |
| <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.   |  |   |                        |     |                |
| <input type="checkbox"/> A check or money order is enclosed to cover the filing fees.  |  |   |                        |     |                |
| <input checked="" type="checkbox"/> The Director is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number: | 12-0080  |   | FILING FEE AMOUNT (\$) |     |                |
| <input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.  |  |   | 80.00                  |     |                |
| <i>The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.</i>   |  |   |                        |     |                |
| <input checked="" type="checkbox"/> No   | <input type="checkbox"/> Yes, the name of the U.S. Government agency and the Government contract number are: |   |                        |     |                |

*Respectfully submitted,*

[Page 1 of 1]

Date

March 1, 2004

**SIGNATURE**

D. D. P.

**REGISTRATION NO.**  
*(if appropriate)*

43 882

## **TELEPHONE**

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**(617) 227-7400**

**REGISTRATION NO.**  
*(if appropriate)*

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(617) 227-7400

**Docket Number:**

USE ONLY FOR

Number: DCP-008-1

**USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT**

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Specification (6 pages)  
Drawings (4 sheets)  
Provisional Patent Application Transmittal (1 page)  
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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003, Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT** (\$ 80.00)

| <i>Complete if Known</i> |                       |
|--------------------------|-----------------------|
| Application Number       | Not Yet Assigned      |
| Filing Date              | Concurrently Herewith |
| First Named Inventor     | Errol DREW            |
| Examiner Name            | Not Yet Assigned      |
| Art Unit                 | N/A                   |

Attorney Docket No. DCP-008-1

| METHOD OF PAYMENT (check all that apply)                         |                                      |                                      |                                   | FEE CALCULATION (continued)   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
|--|--------------------------------------|--------------------------------------|-----------------------------------|---|-------------------------------|--|--|--------------|--------------|----------|----------|----------|----------|------|-----|------|----|-----------------|--|------|----|------|----|-------------------------------------|--|------|-----|------|-----|---|--|------|-------|------|-------|---------------------------|--|------|------|------|------|---|--|------|--------|------|--------|--|--|------|-----|------|----|---|--|------|-----|------|-----|--|--|------|-----|------|-----|---|--|------|-------|------|-----|--|--|------|-------|------|-------|---|--|------|-----|------|-----|--|--|------|-----|------|-----|------------------|--|------|-----|------|-----|--|--|------|-------|------|-------|--------------------------|--|------|-----|------|----|---|--|------|-------|------|-----|----------------------------------|--|------|-------|------|-----|------------------------------------|--|------|-----|------|-----|--------------------------------|--|------|-----|------|-----|------------------|--|------|-----|------|-----|-----------------|--|------|----|------|----|-------------------------------|--|------|-----|------|-----|-------------------------------------|--|------|----|------|----|---|--|------|-----|------|-----|--|--|------|-----|------|-----|---|--|------|-----|------|-----|--|--|------|-----|------|-----|---|--|---------------------------|--|--|--|---|--|-------------------------------|--|--|-----------------------------------|--|-------------------------------|--|--|--|--|--|--|
| <input type="checkbox"/> Check                                   | <input type="checkbox"/> Credit Card | <input type="checkbox"/> Money Order | <input type="checkbox"/> Other    | <input checked="" type="checkbox"/> None  | 3. ADDITIONAL FEES            |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| <input checked="" type="checkbox"/> Deposit Account:             |                                      |                                      |                                   | <table border="1"> <thead> <tr> <th>Large Entity</th> <th>Small Entity</th> </tr> </thead> <tbody> <tr> <td>Fee Code</td> <td>Fee (\$)</td> <td>Fee Code</td> <td>Fee (\$)</td> </tr> <tr> <td>1051</td> <td>130</td> <td>2051</td> <td>65</td> <td colspan="2">Fee Description</td> </tr> <tr> <td>1052</td> <td>50</td> <td>2052</td> <td>25</td> <td colspan="2">Surcharge – late filing fee or oath</td> </tr> <tr> <td>1053</td> <td>130</td> <td>1053</td> <td>130</td> <td colspan="2">Surcharge – late provisional filing fee or cover sheet.</td> </tr> <tr> <td>1812</td> <td>2,520</td> <td>1812</td> <td>2,520</td> <td colspan="2">Non-English specification</td> </tr> <tr> <td>1804</td> <td>920*</td> <td>1804</td> <td>920*</td> <td colspan="2">For filing a request for ex parte reexamination</td> </tr> <tr> <td>1805</td> <td>1,840*</td> <td>1805</td> <td>1,840*</td> <td colspan="2">Requesting publication of SIR prior to Examiner action</td> </tr> <tr> <td>1251</td> <td>110</td> <td>2251</td> <td>55</td> <td colspan="2">Requesting publication of SIR after Examiner action</td> </tr> <tr> <td>1252</td> <td>420</td> <td>2252</td> <td>210</td> <td colspan="2">Extension for reply within first month</td> </tr> <tr> <td>1253</td> <td>950</td> <td>2253</td> <td>475</td> <td colspan="2">Extension for reply within second month</td> </tr> <tr> <td>1254</td> <td>1,480</td> <td>2254</td> <td>740</td> <td colspan="2">Extension for reply within third month</td> </tr> <tr> <td>1255</td> <td>2,010</td> <td>2255</td> <td>1,005</td> <td colspan="2">Extension for reply within fourth month</td> </tr> <tr> <td>1401</td> <td>330</td> <td>2401</td> <td>165</td> <td colspan="2">Extension for reply within fifth month</td> </tr> <tr> <td>1402</td> <td>330</td> <td>2402</td> <td>165</td> <td colspan="2">Notice of Appeal</td> </tr> <tr> <td>1403</td> <td>290</td> <td>2403</td> <td>145</td> <td colspan="2">Filing a brief in support of an appeal</td> </tr> <tr> <td>1451</td> <td>1,510</td> <td>1451</td> <td>1,510</td> <td colspan="2">Request for oral hearing</td> </tr> <tr> <td>1452</td> <td>110</td> <td>2452</td> <td>55</td> <td colspan="2">Petition to institute a public use proceeding</td> </tr> <tr> <td>1453</td> <td>1,330</td> <td>2453</td> <td>665</td> <td colspan="2">Petition to revive – unavoidable</td> </tr> <tr> <td>1501</td> <td>1,330</td> <td>2501</td> <td>665</td> <td colspan="2">Petition to revive - unintentional</td> </tr> <tr> <td>1502</td> <td>480</td> <td>2502</td> <td>240</td> <td colspan="2">Utility issue fee (or reissue)</td> </tr> <tr> <td>1503</td> <td>640</td> <td>2503</td> <td>320</td> <td colspan="2">Design issue fee</td> </tr> <tr> <td>1460</td> <td>130</td> <td>1460</td> <td>130</td> <td colspan="2">Plant issue fee</td> </tr> <tr> <td>1807</td> <td>50</td> <td>1807</td> <td>50</td> <td colspan="2">Petitions to the Commissioner</td> </tr> <tr> <td>1806</td> <td>180</td> <td>1806</td> <td>180</td> <td colspan="2">Processing fee under 37 CFR 1.17(q)</td> </tr> <tr> <td>8021</td> <td>40</td> <td>8021</td> <td>40</td> <td colspan="2">Submission of Information Disclosure Stmt</td> </tr> <tr> <td>1809</td> <td>770</td> <td>2809</td> <td>385</td> <td colspan="2">Recording each patent assignment per property (times number of properties)</td> </tr> <tr> <td>1810</td> <td>770</td> <td>2810</td> <td>385</td> <td colspan="2">Filing a submission after final rejection (37 CFR 1.129(a))</td> </tr> <tr> <td>1801</td> <td>770</td> <td>2801</td> <td>385</td> <td colspan="2">For each additional invention to be examined (37 CFR 1.129(b))</td> </tr> <tr> <td>1802</td> <td>900</td> <td>1802</td> <td>900</td> <td colspan="2">Request for Continued Examination (RCE)</td> </tr> <tr> <td colspan="4">Other fee (specify) _____</td> <td colspan="2">Request for expedited examination of a design application</td> </tr> <tr> <td colspan="3"><b>SUBTOTAL (2) (\$ 0.00)</b></td> <td colspan="2">*Reduced by Basic Filing Fee Paid</td> <td><b>SUBTOTAL (3) (\$ 0.00)</b></td> </tr> <tr> <td colspan="6">**or number previously paid, if greater; For Reissues, see above</td> </tr> </tbody> </table> |                               |  |  | Large Entity | Small Entity | Fee Code | Fee (\$) | Fee Code | Fee (\$) | 1051 | 130 | 2051 | 65 | Fee Description |  | 1052 | 50 | 2052 | 25 | Surcharge – late filing fee or oath |  | 1053 | 130 | 1053 | 130 | Surcharge – late provisional filing fee or cover sheet. |  | 1812 | 2,520 | 1812 | 2,520 | Non-English specification |  | 1804 | 920* | 1804 | 920* | For filing a request for ex parte reexamination |  | 1805 | 1,840* | 1805 | 1,840* | Requesting publication of SIR prior to Examiner action |  | 1251 | 110 | 2251 | 55 | Requesting publication of SIR after Examiner action |  | 1252 | 420 | 2252 | 210 | Extension for reply within first month |  | 1253 | 950 | 2253 | 475 | Extension for reply within second month |  | 1254 | 1,480 | 2254 | 740 | Extension for reply within third month |  | 1255 | 2,010 | 2255 | 1,005 | Extension for reply within fourth month |  | 1401 | 330 | 2401 | 165 | Extension for reply within fifth month |  | 1402 | 330 | 2402 | 165 | Notice of Appeal |  | 1403 | 290 | 2403 | 145 | Filing a brief in support of an appeal |  | 1451 | 1,510 | 1451 | 1,510 | Request for oral hearing |  | 1452 | 110 | 2452 | 55 | Petition to institute a public use proceeding |  | 1453 | 1,330 | 2453 | 665 | Petition to revive – unavoidable |  | 1501 | 1,330 | 2501 | 665 | Petition to revive - unintentional |  | 1502 | 480 | 2502 | 240 | Utility issue fee (or reissue) |  | 1503 | 640 | 2503 | 320 | Design issue fee |  | 1460 | 130 | 1460 | 130 | Plant issue fee |  | 1807 | 50 | 1807 | 50 | Petitions to the Commissioner |  | 1806 | 180 | 1806 | 180 | Processing fee under 37 CFR 1.17(q) |  | 8021 | 40 | 8021 | 40 | Submission of Information Disclosure Stmt |  | 1809 | 770 | 2809 | 385 | Recording each patent assignment per property (times number of properties) |  | 1810 | 770 | 2810 | 385 | Filing a submission after final rejection (37 CFR 1.129(a)) |  | 1801 | 770 | 2801 | 385 | For each additional invention to be examined (37 CFR 1.129(b)) |  | 1802 | 900 | 1802 | 900 | Request for Continued Examination (RCE) |  | Other fee (specify) _____ |  |  |  | Request for expedited examination of a design application |  | <b>SUBTOTAL (2) (\$ 0.00)</b> |  |  | *Reduced by Basic Filing Fee Paid |  | <b>SUBTOTAL (3) (\$ 0.00)</b> | **or number previously paid, if greater; For Reissues, see above |  |  |  |  |  |
| Large Entity   | Small Entity                         |                                      |                                   |   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| Fee Code   | Fee (\$)                             | Fee Code                             | Fee (\$)                          |   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1051   | 130                                  | 2051                                 | 65                                | Fee Description   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1052   | 50                                   | 2052                                 | 25                                | Surcharge – late filing fee or oath   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1053   | 130                                  | 1053                                 | 130                               | Surcharge – late provisional filing fee or cover sheet.   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1812   | 2,520                                | 1812                                 | 2,520                             | Non-English specification   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1804   | 920*                                 | 1804                                 | 920*                              | For filing a request for ex parte reexamination   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1805   | 1,840*                               | 1805                                 | 1,840*                            | Requesting publication of SIR prior to Examiner action  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1251   | 110                                  | 2251                                 | 55                                | Requesting publication of SIR after Examiner action   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1252   | 420                                  | 2252                                 | 210                               | Extension for reply within first month  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1253   | 950                                  | 2253                                 | 475                               | Extension for reply within second month   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1254   | 1,480                                | 2254                                 | 740                               | Extension for reply within third month  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1255   | 2,010                                | 2255                                 | 1,005                             | Extension for reply within fourth month   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1401   | 330                                  | 2401                                 | 165                               | Extension for reply within fifth month  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1402   | 330                                  | 2402                                 | 165                               | Notice of Appeal  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1403   | 290                                  | 2403                                 | 145                               | Filing a brief in support of an appeal  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1451   | 1,510                                | 1451                                 | 1,510                             | Request for oral hearing  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1452   | 110                                  | 2452                                 | 55                                | Petition to institute a public use proceeding   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1453   | 1,330                                | 2453                                 | 665                               | Petition to revive – unavoidable  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1501   | 1,330                                | 2501                                 | 665                               | Petition to revive - unintentional  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1502   | 480                                  | 2502                                 | 240                               | Utility issue fee (or reissue)  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1503   | 640                                  | 2503                                 | 320                               | Design issue fee  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1460   | 130                                  | 1460                                 | 130                               | Plant issue fee   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1807   | 50                                   | 1807                                 | 50                                | Petitions to the Commissioner   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1806   | 180                                  | 1806                                 | 180                               | Processing fee under 37 CFR 1.17(q)   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 8021   | 40                                   | 8021                                 | 40                                | Submission of Information Disclosure Stmt   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1809   | 770                                  | 2809                                 | 385                               | Recording each patent assignment per property (times number of properties)  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1810   | 770                                  | 2810                                 | 385                               | Filing a submission after final rejection (37 CFR 1.129(a))   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1801   | 770                                  | 2801                                 | 385                               | For each additional invention to be examined (37 CFR 1.129(b))  |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| 1802   | 900                                  | 1802                                 | 900                               | Request for Continued Examination (RCE)   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| Other fee (specify) _____  |                                      |                                      |                                   | Request for expedited examination of a design application   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| <b>SUBTOTAL (2) (\$ 0.00)</b>                                    |                                      |                                      | *Reduced by Basic Filing Fee Paid |   | <b>SUBTOTAL (3) (\$ 0.00)</b> |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |
| **or number previously paid, if greater; For Reissues, see above |                                      |                                      |                                   |   |                               |  |  |              |              |          |          |          |          |      |     |      |    |                 |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |       |      |       |                           |  |      |      |      |      |   |  |      |        |      |        |  |  |      |     |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |       |      |     |  |  |      |       |      |       |   |  |      |     |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |       |      |       |                          |  |      |     |      |    |   |  |      |       |      |     |                                  |  |      |       |      |     |                                    |  |      |     |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |    |      |    |                               |  |      |     |      |     |                                     |  |      |    |      |    |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |                           |  |  |  |   |  |                               |  |  |                                   |  |                               |  |  |  |  |  |  |

| SUBMITTED BY      |   |                                      | (Complete if applicable) |               |                |
|-------------------|---|--------------------------------------|--------------------------|---------------|----------------|
| Name (Print/Type) | David J. Rikkers  | Registration No.<br>(Attorney/Agent) | 43,882                   | Telephone     | (617) 227-7400 |
| Signature         |  |                                      | Date                     | March 1, 2004 |                |

**A SINGLE MAIN BEAM BICYCLE AND A SEPARABLE JOINT**

**Technical Field**

5       The invention relates generally to bicycles and to separable joints.

**Brief Description of the Drawings**

The invention will be apparent from the description herein and the accompanying drawings, in which like reference characters refer to the same parts throughout the  
10      different views.

Figure 1 is a side view of a bicycle according to an embodiment of the invention;

Figure 2 is an exploded view of a separable joint according to an embodiment of the invention;

Figure 3 is a reverse view of a second portion of the separable joint of Figure 2;

15       Figure 4 is an exploded view of a separable joint according to an embodiment of the invention;

Figure 5 is a reverse view of a second portion of the separable joint of Figure 4;

Figure 6 is an exploded view of a separable joint according to an embodiment of the invention; and

20       Figure 7 is a reverse view of a second portion of the separable joint of Figure 6.

**Detailed Description**

The present invention in one embodiment provides a bicycle. Another embodiment provides a beam joint. The bicycle may optionally use the beam joint.

25       Figure 1 illustrates a bicycle 200 according to an example embodiment of the invention. The bicycle 200 includes a single main tube 210 having a portion 212

extending beyond a head tube 240. Optionally, the main tube 210 may form a storage compartment in the portion 212 extending beyond the head tube 240. A support tube 230 may be provided between a seat tube 220 and the main tube 210. The support tube 230 may provide additional support to the seat tube 220 and may be used as a handle to 5 lift the bicycle 200. Optionally, a contoured hand grip (not shown) may be provided on the support tube 230 to aid in gripping the support tube 230. Optionally, the seat tube 220 may be oversized in thickness. Examples of ranges of external diameters of the seat tube 220 include at least 45 millimeters and/or a range of 45 to 65 millimeters. In one embodiment, the seat tube 220 has an external diameter of 54 millimeters.

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The bicycle may be formed of a wide variety of materials known for use with forming bicycles.

The bicycle 200 may optionally use a separable joint 100 along the main tube 15 210. The separable joint 100 may be located as illustrated in Figure 1, or may be located anywhere along the main tube 210. The separable joint 100 can allow the bicycle to be separated into two pieces to aid in transport or storage of the bicycle 200. By providing an ability to separate the bicycle 200 into two pieces, the bicycle 200 may be more easily stored in a trunk of a car, a closet or an office, than a bicycle that merely provides a 20 folding capability.

Examples of separable joints are provided in Figures 2-7. With reference to Figure 2, a separable joint 100A is illustrated in exploded form by way of example. The separable joint 100A is implemented in a six-sided beam or post, such as may optionally 25 be used in connection with the bicycle 200. According to the illustrative embodiment of

Figures 2 and 3, the separable joint 100A is provided with a first portion 120 that is separable from a second portion 160. Figure 3 provides a reverse view of the second portion 160. Each of the first and second portions 120, 160 has a protruding element that interact with the protruding element of the other portion. The first portion 120 has a 5 first protruding element 130, and the second portion 160 has a second protruding element 170.

The first and second protruding elements 130, 160 are provided with first and second end faces 126, 166, first and second bevel faces 132, 172 and optionally with 10 first and second protruding element tip faces 131, 171. Optional first and second side faces 124, 164 extend to first and second inner faces 127, 167. The protruding element tip faces 131, 171 and/or the first and second inner faces 127, 167 may optionally be of a very small width or be omitted altogether.

15       The first inner face 127 is provided with a transverse stabilizer 125 and the second end face 166 is provided with a transverse stabilizer receptor 165. An optional fastener hole 168 is provided in the second portion 160 in which to locate a fastener that can extend into or through the first portion 120 to further secure the first portion 120 to the second portion 160. If the fastener extends into the first portion 120, the hole (not 20 shown) in the first portion 120 to receive the fastener may be configured to retain the fastener in the hole, coupled to the first portion 120. In one example, threads are provided in a hole in the first portion 120 such that a bolt provided through the fastener hole 168 in the second portion 160 may be secured to the first portion 120 by the use of the threads.

In operation, the separable joint 100A is configured to receive tensile, compression and shear loads, individually and in combination. The first and second bevel faces 132, 172 contact each other to inhibit separation of the first and second inner faces 127, 167 from the first and second end faces 126, 166. By inhibiting separation of  
5 the first inner face 127 from the second end face 166, the transverse stabilizer 125 remains coupled to the transverse stabilizer receptor 165. The transverse stabilizer 125 and the transverse stabilizer receptor 165 maintain transverse alignment of the first and second portions 120, 160 by preventing the first and second portions 120, 160 from sliding past each other. A fastener, if used, may not be subjected to substantial forces.  
10 The fastener is configured to inhibit separation of the first and second bevel faces 132, 172.

The separable joint may be formed of a wide variety of materials. Examples include metals, such as aluminum, magnesium, titanium, steel and others, plastics or  
15 wood. Optionally, the transverse stabilizer 125 may be formed of a high friction material to aid in retaining the transverse stabilizer 125 within the transverse stabilizer receptor 165. Examples of such high friction material can include rubber or plastics. Surface treatments may also be used to aid in retaining the transverse stabilizer 125 within the transverse stabilizer receptor 165. In such a case, the transverse stabilizer 125  
20 and/or the transverse stabilizer receptor 165 may be provided with a high-friction surface treatment, such as, for example, a roughened surface, to seek to maintain the transverse stabilizer 125 within the transverse stabilizer receptor 165.

To separate the separable joint 100A, any fastener used may be removed from  
25 the fastener hole 168 and is at least removed from engagement of the first portion 120.

The separable joint 100A may then be separated by laterally separating the first and second portions 120, 160, sliding the transverse stabilizer 125 out from within the transverse stabilizer receptor 165.

5        Figures 4 and 6 provide additional examples of separable joints 100B, 100C in tubes or beams of other cross-sections. The separable joints 100B, 100C have analogous components to those discussed above in relation to the separable joint 100A of Figure 1. Figures 5 and 7 provide reverse views of the second portions 160 of the separable joints 100B, 100C of Figures 4 and 6, respectively.

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          The present invention has been described by way of example, and modifications and variations of the described embodiments will suggest themselves to skilled artisans in this field without departing from the spirit of the invention. Aspects and characteristics of the above-described embodiments may be used in combination. The 15 described embodiments are merely illustrative and should not be considered restrictive in any way. The scope of the invention is to be measured by the appended claims, rather than the preceding description, and all variations and equivalents that fall within the range of the claims are intended to be embraced therein.

What is claimed is:

1. A bicycle frame, comprising:

a head tube; and

5 a main tube, said main tube extending past said head tube.

2. A bicycle frame, comprising:

a seat tube;

a main tube; and

10 a support tube extending diagonally from a portion of said seat tube proximate to a location for mounting a seat to a portion of said main tube between said seat tube and a head tube.

3. A beam joint, comprising:

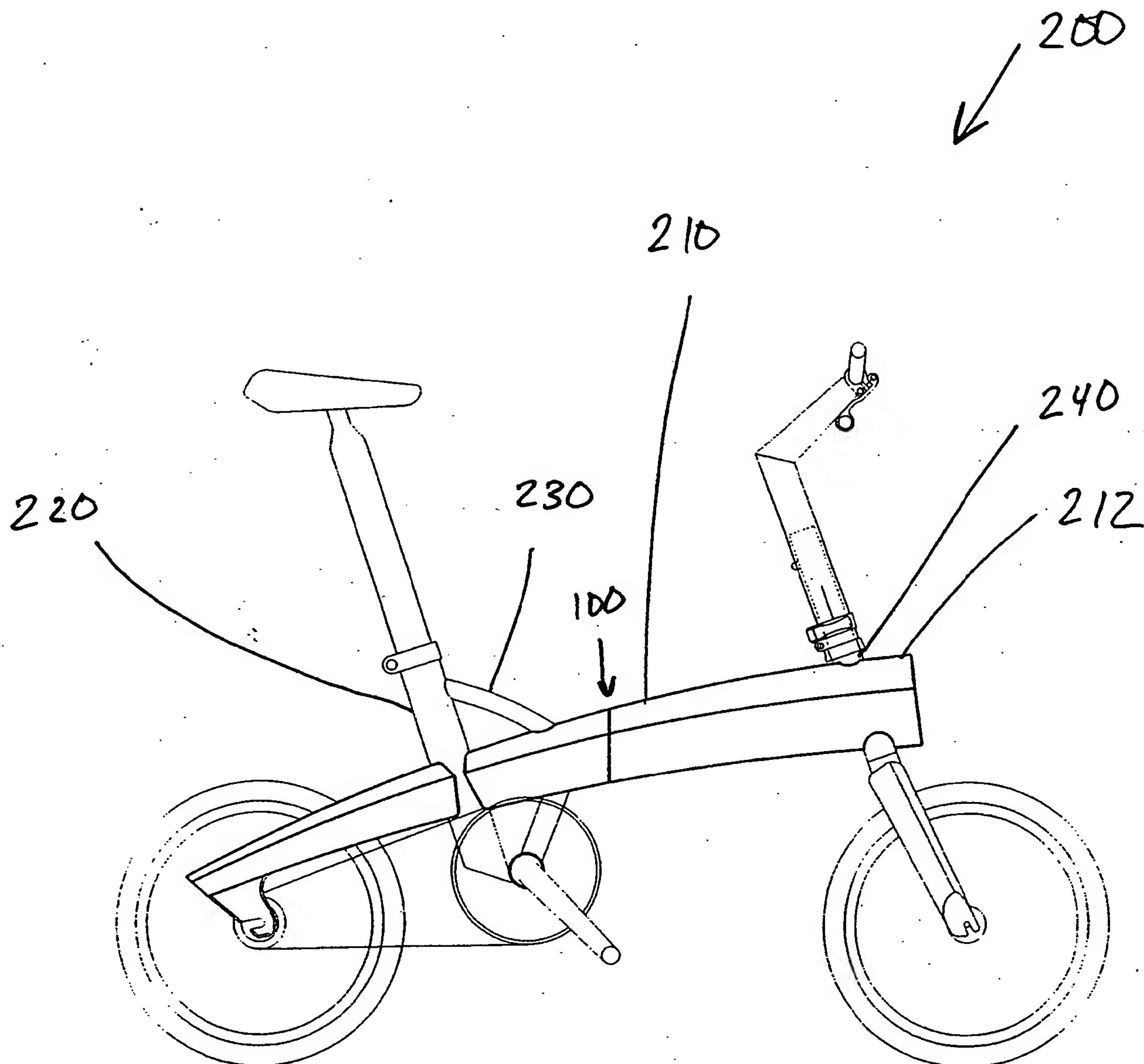
15 a first portion having a first protruding element with a first beveled face;

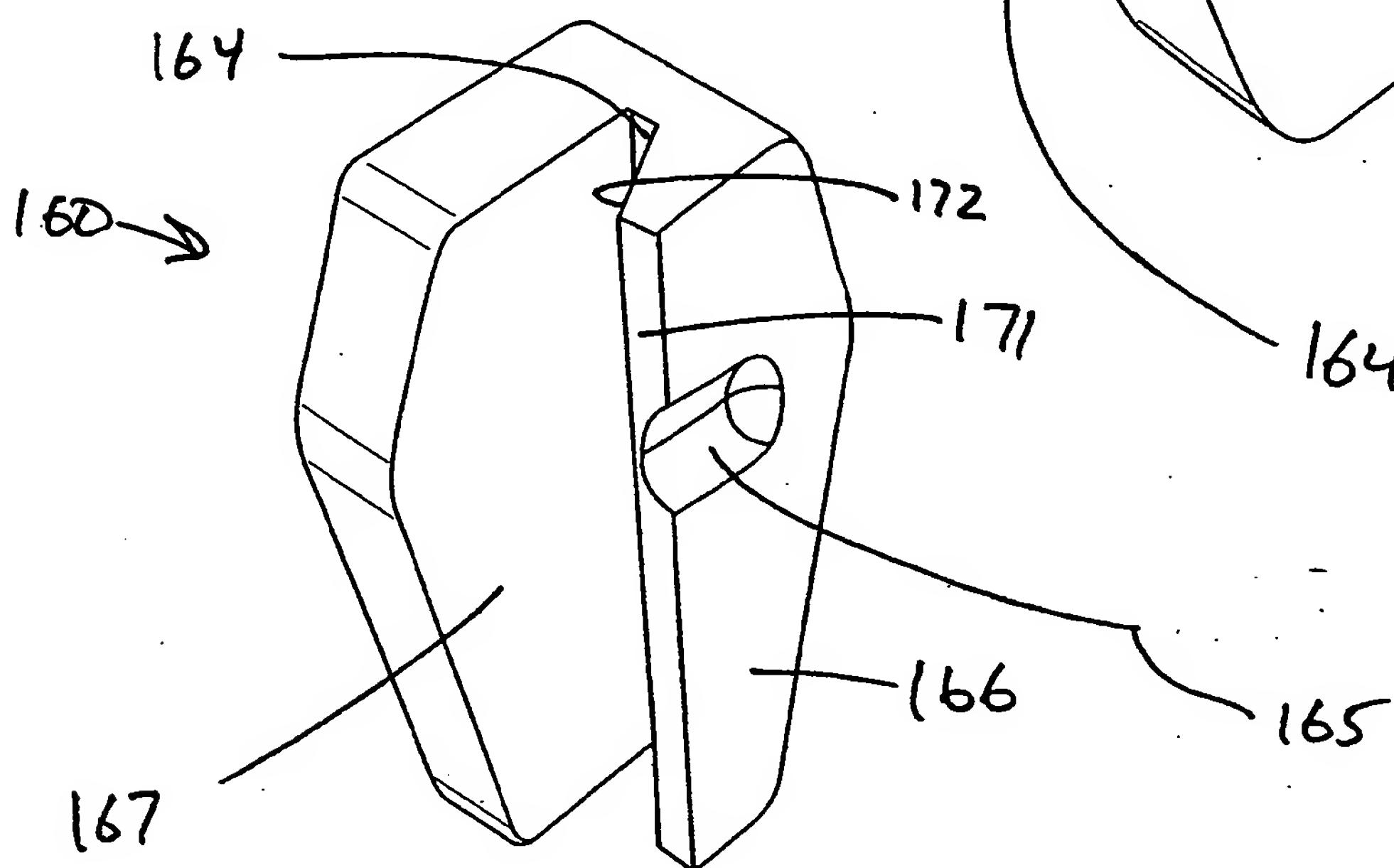
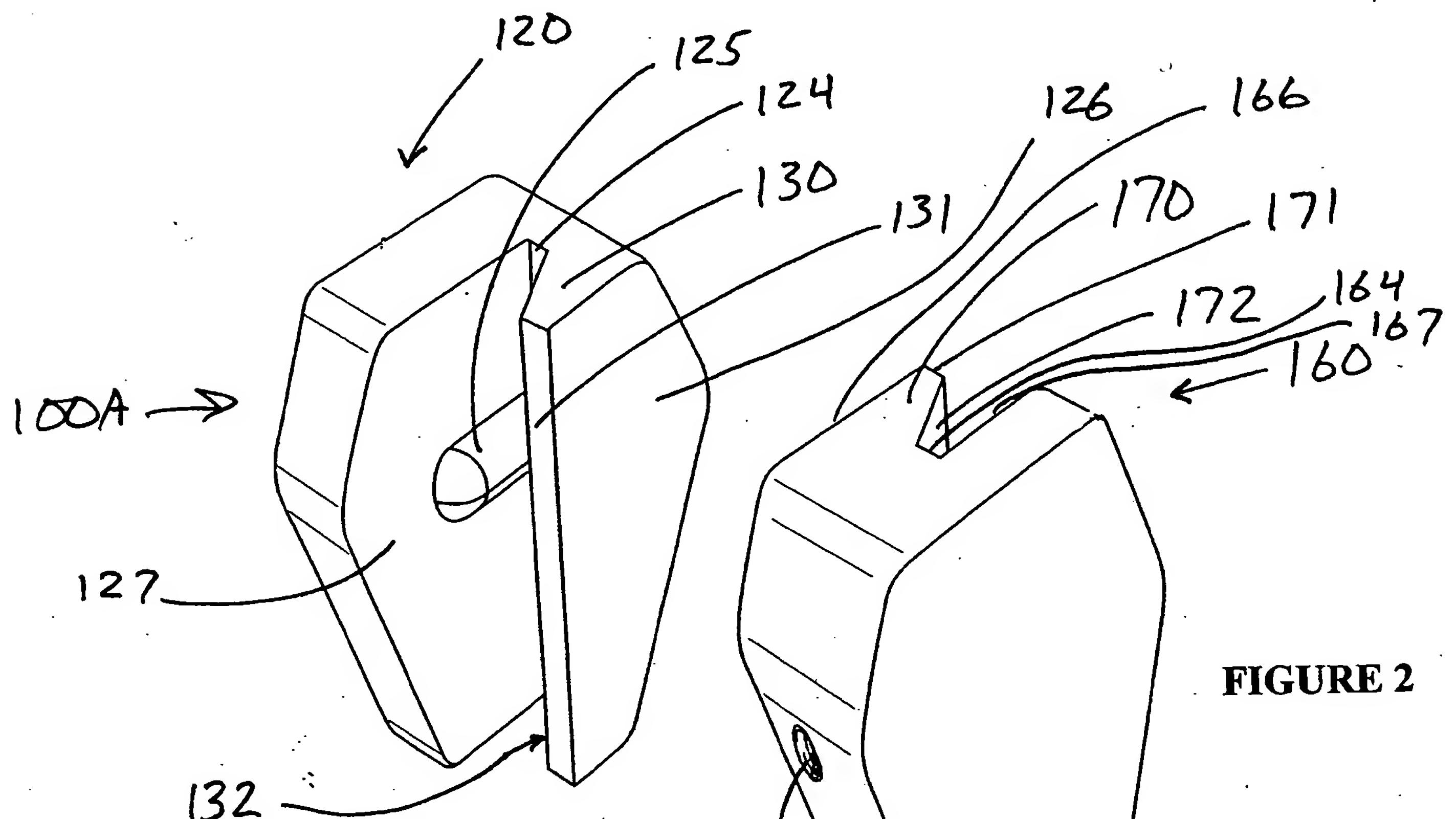
a second portion having a second protruding element configured to mate with said first protruding element;

a transverse stabilizer on said first portion; and

a transverse stabilizer receptor for receiving said transverse stabilizer.

20

**FIGURE 1**



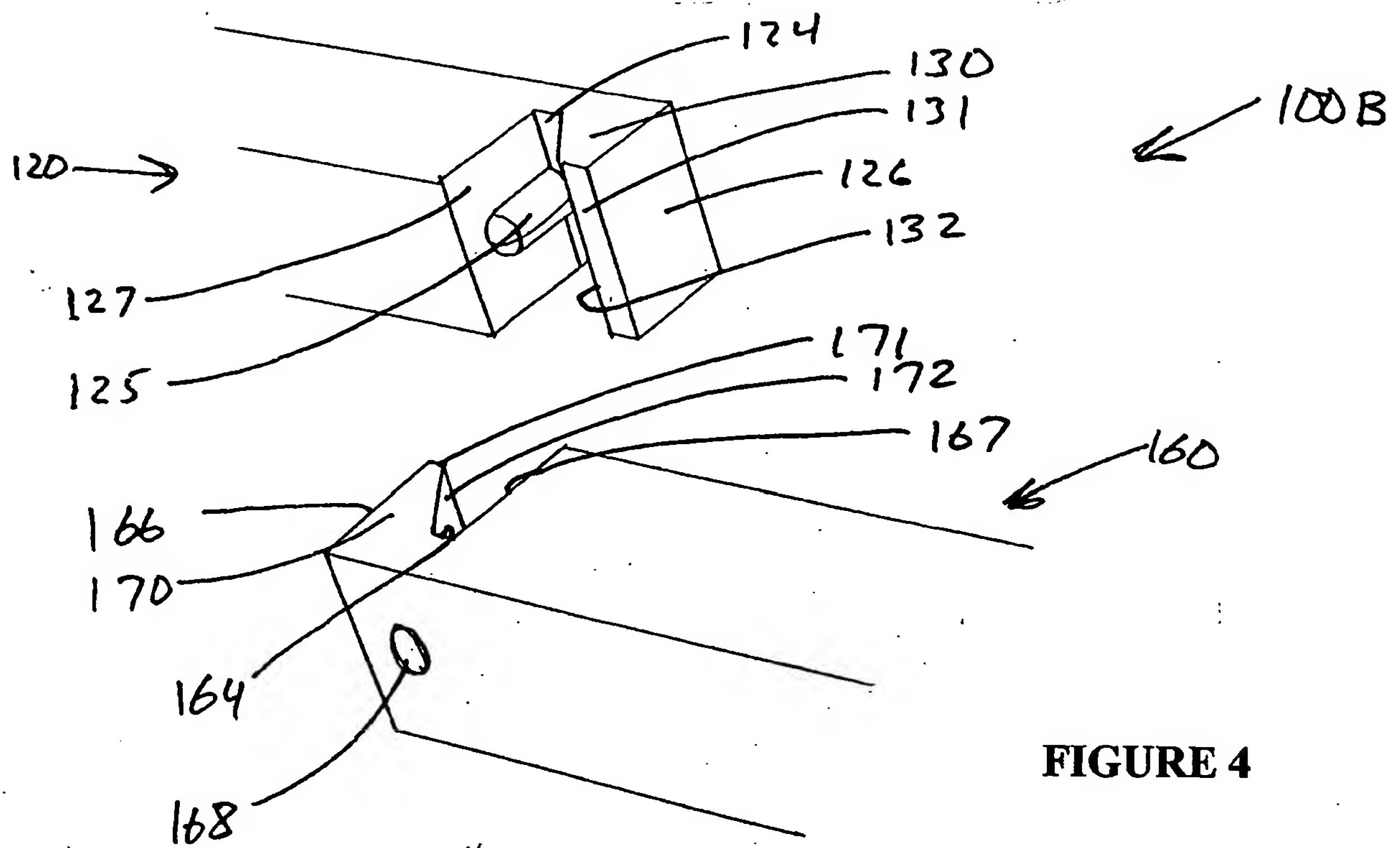
**App No: Not Yet Assigned**

Docket No. DCP-008-1

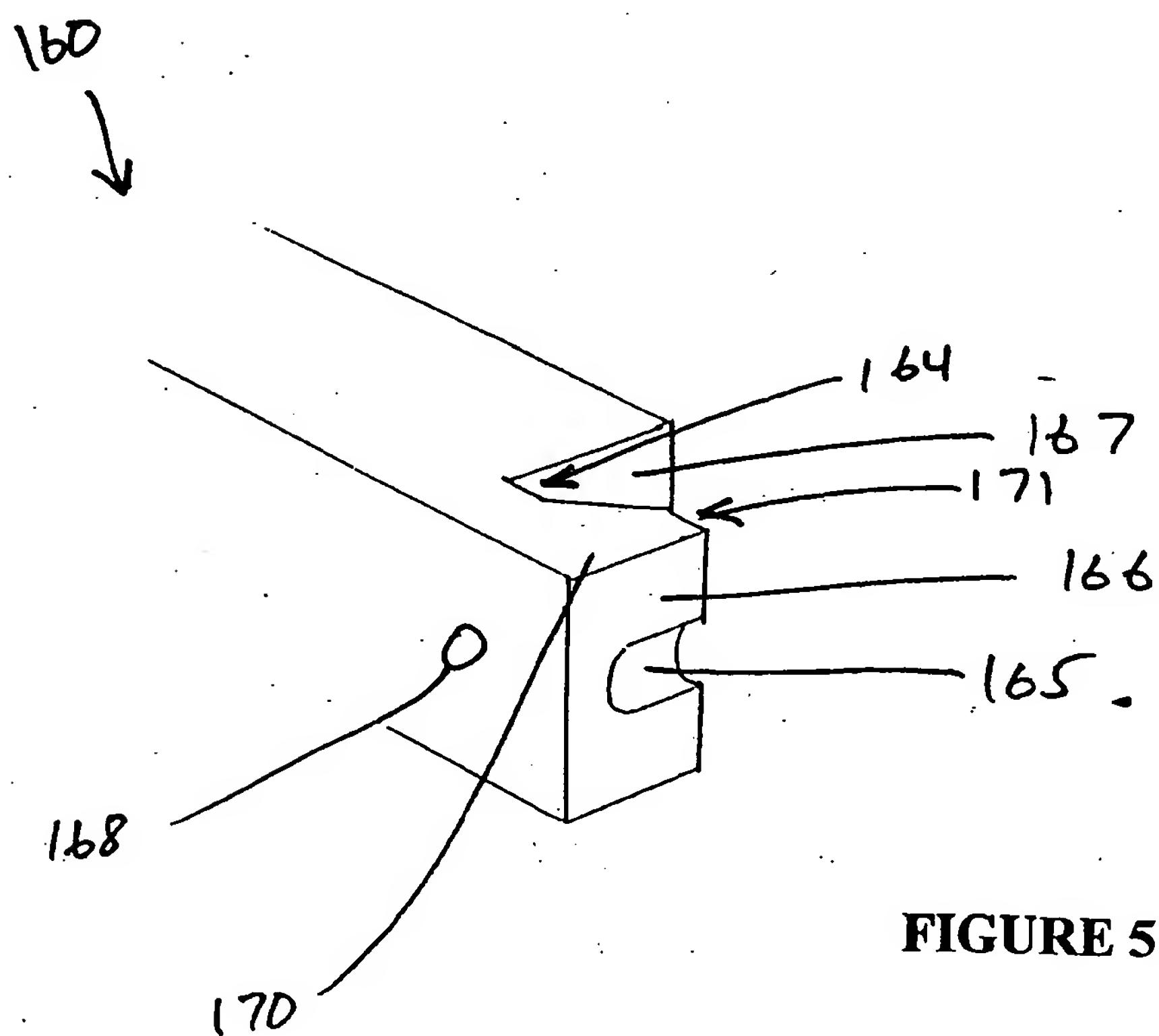
Inventor: Errol Drew

**Title: A SINGLE MAIN BEAM BICYCLE AND A  
SEPARABLE JOINT**

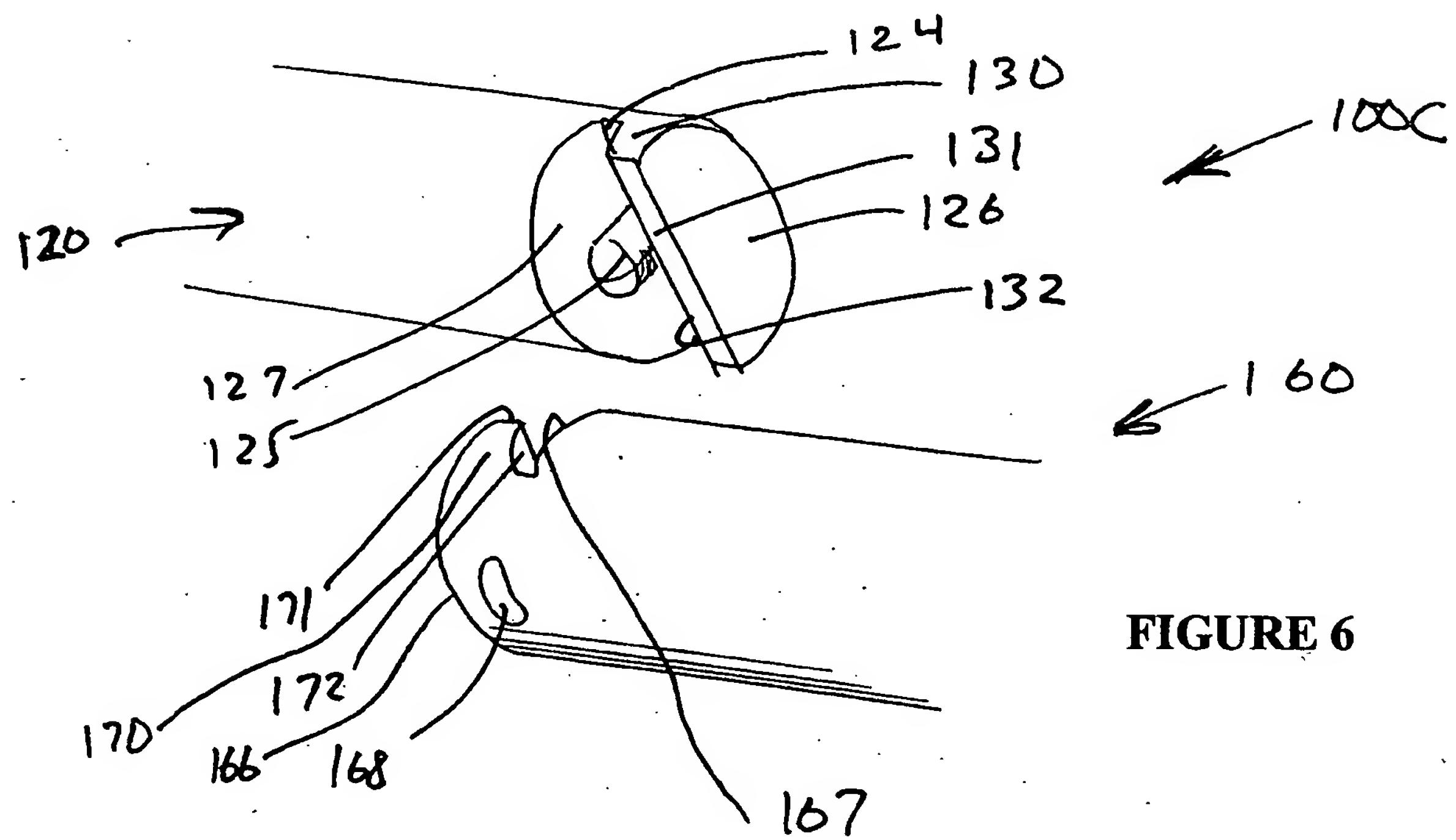
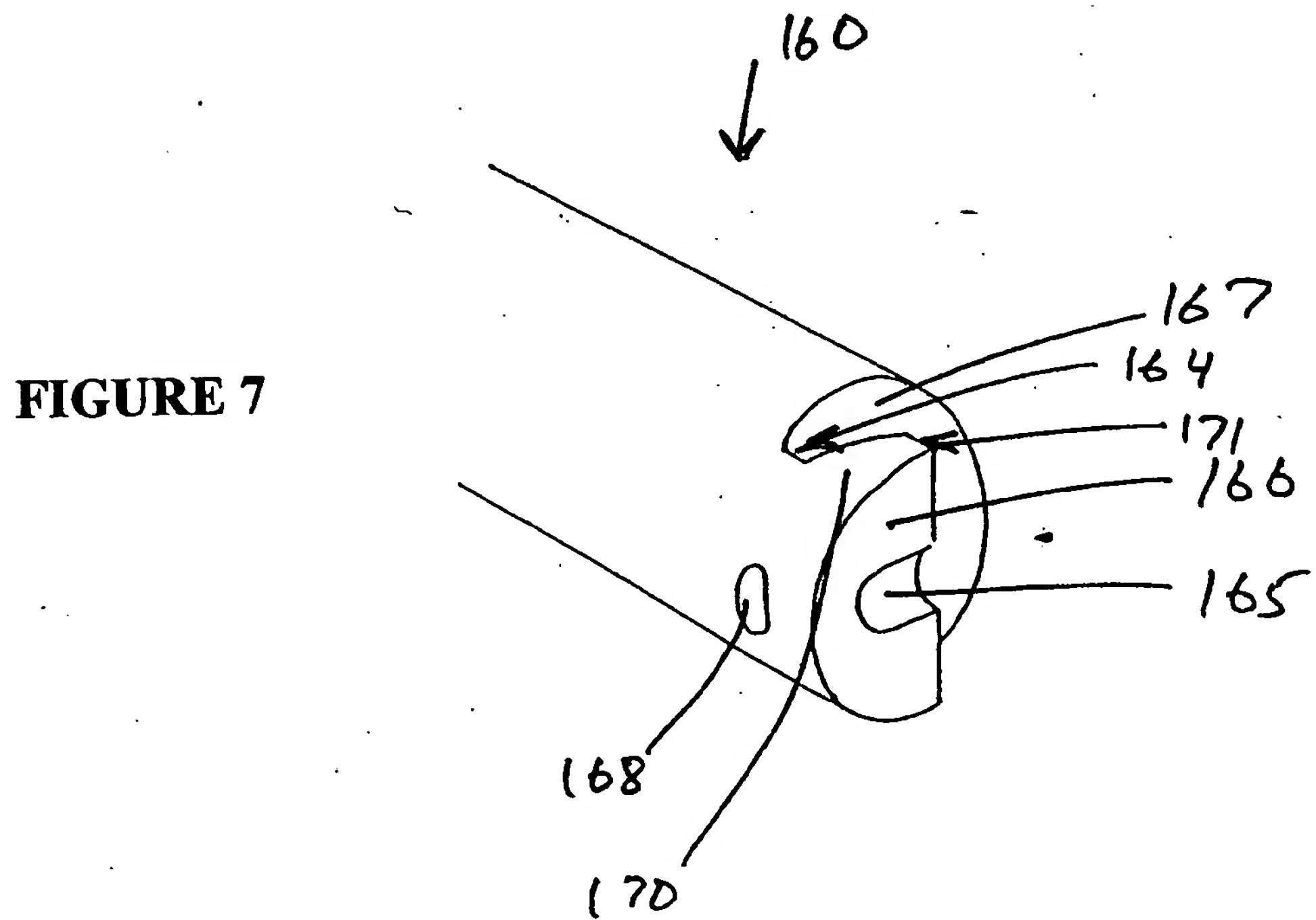
3/4



## FIGURE 4



## **FIGURE 5**

**FIGURE 6****FIGURE 7**

## Application Data Sheet

### **Application Information**

|                                  |   |
|----------------------------------|---|
| Application Type::               | Provisional   |
| Subject Matter::                 | Utility   |
| Suggested Group Art Unit::       | N/A   |
| CD-ROM or CD-R?::                | None  |
| Sequence submission?::           | None  |
| Computer Readable Form (CRF)?::  | No  |
| Title::                          | A SINGLE MAIN BEAM BICYCLE AND A<br>SEPARABLE JOINT |
| Attorney Docket Number::         | DCP-008-1   |
| Request for Early Publication?:: | No  |
| Request for Non-Publication?::   | No  |
| Total Drawing Sheets::           | 4   |
| Small Entity?::                  | Yes   |
| Petition included?::             | No  |
| Secrecy Order in Parent Appl.?:: | No  |

### **Applicant Information**

|   |                |
|---|----------------|
| Applicant Authority Type::              | Inventor       |
| Primary Citizenship Country::           | United Kingdom |
| Status::                                | Full Capacity  |
| Given Name::                            | Errol          |
| Family Name::                           | Drew           |
| City of Residence::                     | Southbridge    |
| State or Province of Residence::        | Northampton    |
| Country of Residence::                  | United Kingdom |
| Street of mailing address::             | 10 Smith Court |
| City of mailing address::               | Southbridge    |
| State or Province of mailing address::  | Northampton    |
| Postal or Zip Code of mailing address:: | NN4 8GF        |
| Country of mailing address::            | United Kingdom |

**Correspondence Information**

Correspondence Customer Number:: 00959

**Representative Information**

Representative Customer Number:: 00959